

33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT  
SEQUENCE LISTING

<110> KUMAR, Chandrika S.

<120> METHODS AND COMPOSITIONS TARGETING TYROSINE KINASES

<130> 3491/OM582US0

<140> To be assigned

<141> Herewith

<160> 35

<170> PatentIn version 3.2

<210> 1

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<212> DNA

<213> Homo sapiens

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<210> 2
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<212> PRT
<213> Homo sapiens

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<400> 2

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His Trp Ile Gly Phe Leu Ser Leu Lys Ser Val Glu Arg Ser Asp Ala
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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Lys Gly Leu Ala Ser Ser Arg Thr Ala Thr Val His Leu Gln Ala Leu  
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Pro Ala Ala Pro Phe Asn Ile Thr Val Thr Lys Leu Ser Ser Ser Asn  
225 230 235 240

Ala Ser Val Ala Trp Met Pro Gly Ala Asp Gly Arg Ala Leu Leu Gln  
245 250 255

Ser Cys Thr Val Gln Val Thr Gln Ala Pro Gly Gly Trp Glu Val Leu  
260 265 270

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275 280 285

Val Pro Ala Thr Asn Tyr Ser Leu Arg Val Arg Cys Ala Asn Ala Leu  
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Gly Pro Ser Pro Tyr Ala Asp Trp Val Pro Phe Gln Thr Lys Gly Leu  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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Ala Gly Gln Gln Gly Pro Pro His Ser Arg Thr Ser Trp Val Pro Val  
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Val Leu Gly Val Leu Thr Ala Leu Val Thr Ala Ala Ala Leu Ala Leu  
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Asp Ser Val Met Ala Arg Gly Glu Pro Ala Val His Phe Arg Ala Ala  
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Arg Ser Phe Asn Arg Glu Arg Pro Glu Arg Ile Glu Ala Thr Leu Asp  
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Ser Leu Gly Ile Ser Asp Glu Leu Lys Glu Lys Leu Glu Asp Val Leu  
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Ile Pro Glu Gln Gln Phe Thr Leu Gly Arg Met Leu Gly Lys Gly Glu  
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Phe Gly Ser Val Arg Glu Ala Gln Leu Lys Gln Glu Asp Gly Ser Phe  
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Val Lys Val Ala Val Lys Met Leu Lys Ala Asp Ile Ile Ala Ser Ser  
545 550 555 560

Asp Ile Glu Glu Phe Leu Arg Glu Ala Ala Cys Met Lys Glu Phe Asp  
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His Pro His Val Ala Lys Leu Val Gly Val Ser Leu Arg Ser Arg Ala  
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Lys Gly Arg Leu Pro Ile Pro Met Val Ile Leu Pro Phe Met Lys His  
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Gly Asp Leu His Ala Phe Leu Leu Ala Ser Arg Ile Gly Glu Asn Pro  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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 Cys Gly Met Glu Tyr Leu Ser Ser Arg Asn Phe Ile His Arg Asp Leu  
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 660 665 670  
 Asp Phe Gly Leu Ser Arg Lys Ile Tyr Ser Gly Asp Tyr Tyr Arg Gln  
 675 680 685  
 Gly Cys Ala Ser Lys Leu Pro Val Lys Trp Leu Ala Leu Glu Ser Leu  
 690 695 700  
 Ala Asp Asn Leu Tyr Thr Val Gln Ser Asp Val Trp Ala Phe Gly Val  
 705 710 715 720  
 Thr Met Trp Glu Ile Met Thr Arg Gly Gln Thr Pro Tyr Ala Gly Ile  
 725 730 735  
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 740 745 750  
 Gln Pro Pro Glu Cys Met Glu Asp Val Tyr Asp Leu Met Tyr Gln Cys  
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 820 825 830  
 Asp Gly Ser Gly Met Gly Ala Val Gly Gly Thr Pro Ser Asp Cys Arg  
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 Tyr Ile Leu Thr Pro Gly Gly Leu Ala Glu Gln Pro Gly Gln Ala Glu  
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 His Gln Pro Glu Ser Pro Leu Asn Glu Thr Gln Arg Leu Leu Leu Leu  
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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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875

880

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<210> 3  
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Ala Phe Gln Val Phe Glu Glu Ala Lys Gln Gly His Leu Glu Arg Glu  
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Cys Val Glu Glu Leu Cys Ser Arg Glu Glu Ala Arg Glu Val Phe Glu  
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Asn Asp Pro Glu Thr Asp Tyr Phe Tyr Pro Arg Tyr Leu Asp Cys Ile  
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Asn Lys Tyr Gly Ser Pro Tyr Thr Lys Asn Ser Gly Phe Ala Thr Cys  
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Val Gln Asn Leu Pro Asp Gln Cys Thr Pro Asn Pro Cys Asp Arg Lys  
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Gly Thr Gln Ala Cys Gln Asp Leu Met Gly Asn Phe Phe Cys Leu Cys  
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180 185 190

Arg Thr Cys Gln Asp Ile Asp Glu Cys Ala Asp Ser Glu Ala Cys Gly  
Page 7

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210 215 220

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Glu Cys Leu Gln Gly Arg Cys Glu Gln Val Cys Val Asn Ser Pro Gly  
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Ser Tyr Thr Cys His Cys Asp Gly Arg Gly Gly Leu Lys Leu Ser Gln  
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275 280 285

Ala Lys Ser Val Lys Ser Leu Tyr Leu Gly Arg Met Phe Ser Gly Thr  
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Ala Glu Phe Asp Phe Arg Thr Phe Asp Pro Glu Gly Ile Leu Leu Phe  
325 330 335

Ala Gly Gly His Gln Asp Ser Thr Trp Ile Val Leu Ala Leu Arg Ala  
340 345 350

Gly Arg Leu Glu Leu Gln Leu Arg Tyr Asn Gly Val Gly Arg Val Thr  
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Ser Ser Gly Pro Val Ile Asn His Gly Met Trp Gln Thr Ile Ser Val  
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Glu Glu Leu Ala Arg Asn Leu Val Ile Lys Val Asn Arg Asp Ala Val  
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Met Lys Ile Ala Val Ala Gly Asp Leu Phe Gln Pro Glu Arg Gly Leu  
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Tyr His Leu Asn Leu Thr Val Gly Gly Ile Pro Phe His Glu Lys Asp  
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Leu Val Gln Pro Ile Asn Pro Arg Leu Asp Gly Cys Met Arg Ser Trp  
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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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&lt;400&gt; 4

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<213> Artificial

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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<213> Homo sapiens

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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<212> PRT
<213> Homo sapiens

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<400> 29

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Ser Gln Val Leu Val Arg Lys Arg Arg Ala Asn Ser Leu Leu Glu Glu
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Thr Lys Gln Gly Asn Leu Glu Arg Glu Cys Ile Glu Glu Leu Cys Asn
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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 Phe Thr Ala Ala Arg Gln Ser Thr Asn Ala Tyr Pro Asp Leu Arg Ser  
 100 105 110  
 Cys Val Asn Ala Ile Pro Asp Gln Cys Ser Pro Leu Pro Cys Asn Glu  
 115 120 125  
 Asp Gly Tyr Met Ser Cys Lys Asp Gly Lys Ala Ser Phe Thr Cys Thr  
 130 135 140  
 Cys Lys Pro Gly Trp Gln Gly Glu Lys Cys Glu Phe Asp Ile Asn Glu  
 145 150 155 160  
 Cys Lys Asp Pro Ser Asn Ile Asn Gly Gly Cys Ser Gln Ile Cys Asp  
 165 170 175  
 Asn Thr Pro Gly Ser Tyr His Cys Ser Cys Lys Asn Gly Phe Val Met  
 180 185 190  
 Leu Ser Asn Lys Lys Asp Cys Lys Asp Val Asp Glu Cys Ser Leu Lys  
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 Pro Ser Ile Cys Gly Thr Ala Val Cys Lys Asn Ile Pro Gly Asp Phe  
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 Glu Cys Glu Cys Pro Glu Gly Tyr Arg Tyr Asn Leu Lys Ser Lys Ser  
 225 230 235 240  
 Cys Glu Asp Ile Asp Glu Cys Ser Glu Asn Met Cys Ala Gln Leu Cys  
 245 250 255  
 Val Asn Tyr Pro Gly Gly Tyr Thr Cys Tyr Cys Asp Gly Lys Lys Gly  
 260 265 270  
 Phe Lys Leu Ala Gln Asp Gln Lys Ser Cys Glu Val Val Ser Val Cys  
 275 280 285  
 Leu Pro Leu Asn Leu Asp Thr Lys Tyr Glu Leu Leu Tyr Leu Ala Glu  
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 Gln Phe Ala Gly Val Val Leu Tyr Leu Lys Phe Arg Leu Pro Glu Ile  
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## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT.

305

310

315

320

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340 345 350

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355 360 365

Ser Lys Ile Thr Thr Gly Gly Asp Val Ile Asn Asn Gly Leu Trp Asn  
370 375 380

Met Val Ser Val Glu Glu Leu Glu His Ser Ile Ser Ile Lys Ile Ala  
385 390 395 400

Lys Glu Ala Val Met Asp Ile Asn Lys Pro Gly Pro Leu Phe Lys Pro  
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Glu Asn Gly Leu Leu Glu Thr Lys Val Tyr Phe Ala Gly Phe Pro Arg  
420 425 430

Lys Val Glu Ser Glu Leu Ile Lys Pro Ile Asn Pro Arg Leu Asp Gly  
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Cys Ile Arg Ser Trp Asn Leu Met Lys Gln Gly Ala Ser Gly Ile Lys  
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Glu Ile Ile Gln Glu Lys Gln Asn Lys His Cys Leu Val Thr Val Glu  
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Lys Gly Ser Tyr Tyr Pro Gly Ser Gly Ile Ala Gln Phe His Ile Asp  
485 490 495

Tyr Asn Asn Val Ser Ser Ala Glu Gly Trp His Val Asn Val Thr Leu  
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Asn Ile Arg Pro Ser Thr Gly Thr Gly Val Met Leu Ala Leu Val Ser  
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Gly Asn Asn Thr Val Pro Phe Ala Val Ser Leu Val Asp Ser Thr Ser  
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Glu Lys Ser Gln Asp Ile Leu Leu Ser Val Glu Asn Thr Val Ile Tyr  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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Glu Thr Ile Ser His Glu Asp Leu Gln Arg Gln Leu Ala Val Leu Asp  
595 600 605

Lys Ala Met Lys Ala Lys Val Ala Thr Tyr Leu Gly Gly Leu Pro Asp  
610 615 620

Val Pro Phe Ser Ala Thr Pro Val Asn Ala Phe Tyr Asn Gly Cys Met  
625 630 635 640

Glu Val Asn Ile Asn Gly Val Gln Leu Asp Leu Asp Glu Ala Ile Ser  
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Thr Lys Asn Ser  
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## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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<212> PRT
<213> Homo sapiens

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<400> 31

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Glu Glu Ser Pro Phe Val Gly Asn Pro Gly Asn Ile Thr Gly Ala Arg
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Gly Leu Thr Gly Thr Leu Arg Cys Gln Leu Gln Val Gln Gly Glu Pro
50 55 60

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Pro Glu Val His Trp Leu Arg Asp Gly Gln Ile Leu Glu Leu Ala Asp
65 70 75 80

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Ser Thr Gln Thr Gln Val Pro Leu Gly Glu Asp Glu Gln Asp Asp Trp
85 90 95

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Ile Val Val Ser Gln Leu Arg Ile Thr Ser Leu Gln Leu Ser Asp Thr
100 105 110

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Gly Gln Tyr Gln Cys Leu Val Phe Leu Gly His Gln Thr Phe Val Ser
115 120 125

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Gln Pro Gly Tyr Val Gly Leu Glu Gly Leu Pro Tyr Phe Leu Glu Glu
130 135 140

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Pro Glu Asp Arg Thr Val Ala Ala Asn Thr Pro Phe Asn Leu Ser Cys
145 150 155 160

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

Gln Ala Gln Gly Pro Pro Glu Pro Val Asp Leu Leu Trp Leu Gln Asp  
165 170 175

Ala Val Pro Leu Ala Thr Ala Pro Gly His Gly Pro Gln Arg Ser Leu  
180 185 190

His Val Pro Gly Leu Asn Lys Thr Ser Ser Phe Ser Cys Glu Ala His  
195 200 205

Asn Ala Lys Gly Val Thr Thr Ser Arg Thr Ala Thr Ile Thr Val Leu  
210 215 220

Pro Gln Gln Pro Arg Asn Leu His Leu Val Ser Arg Gln Pro Thr Glu  
225 230 235 240

Leu Glu Val Ala Trp Thr Pro Gly Leu Ser Gly Ile Tyr Pro Leu Thr  
245 250 255

His Cys Thr Leu Gln Ala Val Leu Ser Asp Asp Gly Met Gly Ile Gln  
260 265 270

Ala Gly Glu Pro Asp Pro Pro Glu Glu Pro Leu Thr Ser Gln Ala Ser  
275 280 285

Val Pro Pro His Gln Leu Arg Leu Gly Ser Leu His Pro His Thr Pro  
290 295 300

Tyr His Ile Arg Val Ala Cys Thr Ser Ser Gln Gly Pro Ser Ser Trp  
305 310 315 320

Thr His Trp Leu Pro Val Glu Thr Pro Glu Gly Val Pro Leu Gly Pro  
325 330 335

Pro Glu Asn Ile Ser Ala Thr Arg Asn Gly Ser Gln Ala Phe Val His  
340 345 350

Trp Gln Glu Pro Arg Ala Pro Leu Gln Gly Thr Leu Leu Gly Tyr Arg  
355 360 365

Leu Ala Tyr Gln Gly Gln Asp Thr Pro Glu Val Leu Met Asp Ile Gly  
370 375 380

Leu Arg Gln Glu Val Thr Leu Glu Leu Gln Gly Asp Gly Ser Val Ser  
385 390 395 400

Asn Leu Thr Val Cys Val Ala Ala Tyr Thr Ala Ala Gly Asp Gly Pro  
Page 24



33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT  
405 410 415

Trp Ser Leu Pro Val Pro Leu Glu Ala Trp Arg Pro Val Lys Glu Pro  
420 425 430

Ser Thr Pro Ala Phe Ser Trp Pro Trp Trp Tyr Val Leu Leu Gly Ala  
435 440 445

Val Val Ala Ala Ala Cys Val Leu Ile Leu Ala Leu Phe Leu Val His  
450 455 460

Arg Arg Lys Lys Glu Thr Arg Tyr Gly Glu Val Phe Glu Pro Thr Val  
465 470 475 480

Glu Arg Gly Glu Leu Val Val Arg Tyr Arg Val Arg Lys Ser Tyr Ser  
485 490 495

Arg Arg Thr Thr Glu Ala Thr Leu Asn Ser Leu Gly Ile Ser Glu Glu  
500 505 510

Leu Lys Glu Lys Leu Arg Asp Val Met Val Asp Arg His Lys Val Ala  
515 520 525

Leu Gly Lys Thr Leu Gly Glu Gly Glu Phe Gly Ala Val Met Glu Gly  
530 535 540

Gln Leu Asn Gln Asp Asp Ser Ile Leu Lys Val Ala Val Lys Thr Met  
545 550 555 560

Lys Ile Ala Ile Cys Thr Arg Ser Glu Leu Glu Asp Phe Leu Ser Glu  
565 570 575

Ala Val Cys Met Lys Glu Phe Asp His Pro Asn Val Met Arg Leu Ile  
580 585 590

Gly Val Cys Phe Gln Gly Ser Glu Arg Glu Ser Phe Pro Ala Pro Val  
595 600 605

Val Ile Leu Pro Phe Met Lys His Gly Asp Leu His Ser Phe Leu Leu  
610 615 620

Tyr Ser Arg Leu Gly Asp Gln Pro Val Tyr Leu Pro Thr Gln Met Leu  
625 630 635 640

Val Lys Phe Met Ala Asp Ile Ala Ser Gly Met Glu Tyr Leu Ser Thr  
645 650 655

# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

Lys Arg Phe Ile His Arg Asp Leu Ala Ala Arg Asn Cys Met Leu Asn  
 660 665 670  
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 675 680 685  
 Tyr Asn Gly Asp Tyr Tyr Arg Gln Gly Arg Ile Ala Lys Met Pro Val  
 690 695 700  
 Lys Trp Ile Ala Ile Glu Ser Leu Ala Asp Arg Val Tyr Thr Ser Lys  
 705 710 715 720  
 Ser Asp Val Trp Ser Phe Gly Val Thr Met Trp Glu Ile Ala Thr Arg  
 725 730 735  
 Gly Gln Thr Pro Tyr Pro Gly Val Glu Asn Ser Glu Ile Tyr Asp Tyr  
 740 745 750  
 Leu Arg Gln Gly Asn Arg Leu Lys Gln Pro Ala Asp Cys Leu Asp Gly  
 755 760 765  
 Leu Tyr Ala Leu Met Ser Arg Cys Trp Glu Leu Asn Pro Gln Asp Arg  
 770 775 780  
 Pro Ser Phe Thr Glu Leu Arg Glu Asp Leu Glu Asn Thr Leu Lys Ala  
 785 790 795 800  
 Leu Pro Pro Ala Gln Glu Pro Asp Glu Ile Leu Tyr Val Asn Met Asp  
 805 810 815  
 Glu Gly Gly Gly Tyr Pro Glu Pro Pro Gly Ala Ala Gly Gly Ala Asp  
 820 825 830  
 Pro Pro Thr Gln Pro Asp Pro Lys Asp Ser Cys Ser Cys Leu Thr Ala  
 835 840 845  
 Ala Glu Val His Pro Ala Gly Arg Tyr Val Leu Cys Pro Ser Thr Thr  
 850 855 860  
 Pro Ser Pro Ala Gln Pro Ala Asp Arg Gly Ser Pro Ala Ala Pro Gly  
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 Gln Glu Asp Gly Ala  
 885

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 <212> DNA

## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

&lt;213&gt; Homo sapiens

&lt;400&gt; 32

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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<210> 33
<211> 894
<212> PRT
<213> Homo sapiens

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<400> 33

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Leu Ala Leu Cys Gly Trp Ala Cys Met Ala Pro Arg Gly Thr Gln Ala
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Glu Glu Ser Pro Phe Val Gly Asn Pro Gly Asn Ile Thr Gly Ala Arg
35          40          45

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

Gly Leu Thr Gly Thr Leu Arg Cys Gln Leu Gln Val Gln Gly Glu Pro  
50 55 60

Pro Glu Val His Trp Leu Arg Asp Gly Gln Ile Leu Glu Leu Ala Asp  
65 70 75 80

Ser Thr Gln Thr Gln Val Pro Leu Gly Glu Asp Glu Gln Asp Asp Trp  
85 90 95

Ile Val Val Ser Gln Leu Arg Ile Thr Ser Leu Gln Leu Ser Asp Thr  
100 105 110

Gly Gln Tyr Gln Cys Leu Val Phe Leu Gly His Gln Thr Phe Val Ser  
115 120 125

Gln Pro Gly Tyr Val Gly Leu Glu Gly Leu Pro Tyr Phe Leu Glu Glu  
130 135 140

Pro Glu Asp Arg Thr Val Ala Ala Asn Thr Pro Phe Asn Leu Ser Cys  
145 150 155 160

Gln Ala Gln Gly Pro Pro Glu Pro Val Asp Leu Leu Trp Leu Gln Asp  
165 170 175

Ala Val Pro Leu Ala Thr Ala Pro Gly His Gly Pro Gln Arg Ser Leu  
180 185 190

His Val Pro Gly Leu Asn Lys Thr Ser Ser Phe Ser Cys Glu Ala His  
195 200 205

Asn Ala Lys Gly Val Thr Thr Ser Arg Thr Ala Thr Ile Thr Val Leu  
210 215 220

Pro Gln Gln Pro Arg Asn Leu His Leu Val Ser Arg Gln Pro Thr Glu  
225 230 235 240

Leu Glu Val Ala Trp Thr Pro Gly Leu Ser Gly Ile Tyr Pro Leu Thr  
245 250 255

His Cys Thr Leu Gln Ala Val Leu Ser Asp Asp Gly Met Gly Ile Gln  
260 265 270

Ala Gly Glu Pro Asp Pro Pro Glu Glu Pro Leu Thr Ser Gln Ala Ser  
275 280 285

Val Pro Pro His Gln Leu Arg Leu Gly Ser Leu His Pro His Thr Pro

## 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

290

295

300

Tyr His Ile Arg Val Ala Cys Thr Ser Ser Gln Gly Pro Ser Ser Trp  
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 325 330 335

Pro Glu Asn Ile Ser Ala Thr Arg Asn Gly Ser Gln Ala Phe Val His  
 340 345 350

Trp Gln Glu Pro Arg Ala Pro Leu Gln Gly Thr Leu Leu Gly Tyr Arg  
 355 360 365

Leu Ala Tyr Gln Gly Gln Asp Thr Pro Glu Val Leu Met Asp Ile Gly  
 370 375 380

Leu Arg Gln Glu Val Thr Leu Glu Leu Gln Gly Asp Gly Ser Val Ser  
 385 390 395 400

Asn Leu Thr Val Cys Val Ala Ala Tyr Thr Ala Ala Gly Asp Gly Pro  
 405 410 415

Trp Ser Leu Pro Val Pro Leu Glu Ala Trp Arg Pro Gly Gln Ala Gln  
 420 425 430

Pro Val His Gln Leu Val Lys Glu Pro Ser Thr Pro Ala Phe Ser Trp  
 435 440 445

Pro Trp Trp Tyr Val Leu Leu Gly Ala Val Val Ala Ala Ala Cys Val  
 450 455 460

Leu Ile Leu Ala Leu Phe Leu Val His Arg Arg Lys Lys Glu Thr Arg  
 465 470 475 480

Tyr Gly Glu Val Phe Glu Pro Thr Val Glu Arg Gly Glu Leu Val Val  
 485 490 495

Arg Tyr Arg Val Arg Lys Ser Tyr Ser Arg Arg Thr Thr Glu Ala Thr  
 500 505 510

Leu Asn Ser Leu Gly Ile Ser Glu Glu Leu Lys Glu Lys Leu Arg Asp  
 515 520 525

Val Met Val Asp Arg His Lys Val Ala Leu Gly Lys Thr Leu Gly Glu  
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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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565 570 575

Ser Glu Leu Glu Asp Phe Leu Ser Glu Ala Val Cys Met Lys Glu Phe  
580 585 590

Asp His Pro Asn Val Met Arg Leu Ile Gly Val Cys Phe Gln Gly Ser  
595 600 605

Glu Arg Glu Ser Phe Pro Ala Pro Val Val Ile Leu Pro Phe Met Lys  
610 615 620

His Gly Asp Leu His Ser Phe Leu Leu Tyr Ser Arg Leu Gly Asp Gln  
625 630 635 640

Pro Val Tyr Leu Pro Thr Gln Met Leu Val Lys Phe Met Ala Asp Ile  
645 650 655

Ala Ser Gly Met Glu Tyr Leu Ser Thr Lys Arg Phe Ile His Arg Asp  
660 665 670

Leu Ala Ala Arg Asn Cys Met Leu Asn Glu Asn Met Ser Val Cys Val  
675 680 685

Ala Asp Phe Gly Leu Ser Lys Lys Ile Tyr Asn Gly Asp Tyr Tyr Arg  
690 695 700

Gln Gly Arg Ile Ala Lys Met Pro Val Lys Trp Ile Ala Ile Glu Ser  
705 710 715 720

Leu Ala Asp Arg Val Tyr Thr Ser Lys Ser Asp Val Trp Ser Phe Gly  
725 730 735

Val Thr Met Trp Glu Ile Ala Thr Arg Gly Gln Thr Pro Tyr Pro Gly  
740 745 750

Val Glu Asn Ser Glu Ile Tyr Asp Tyr Leu Arg Gln Gly Asn Arg Leu  
755 760 765

Lys Gln Pro Ala Asp Cys Leu Asp Gly Leu Tyr Ala Leu Met Ser Arg  
770 775 780

Cys Trp Glu Leu Asn Pro Gln Asp Arg Pro Ser Phe Thr Glu Leu Arg  
785 790 795 800



# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

Glu Asp Leu Glu Asn Thr Leu Lys Ala Leu Pro Pro Ala Gln Glu Pro  
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Asp Glu Ile Leu Tyr Val Asn Met Asp Glu Gly Gly Gly Tyr Pro Glu  
820 825 830

Pro Pro Gly Ala Ala Gly Gly Ala Asp Pro Pro Thr Gln Pro Asp Pro  
835 840 845

Lys Asp Ser Cys Ser Cys Leu Thr Ala Ala Glu Val His Pro Ala Gly  
850 855 860

Arg Tyr Val Leu Cys Pro Ser Thr Thr Pro Ser Pro Ala Gln Pro Ala  
865 870 875 880

Asp Arg Gly Ser Pro Ala Ala Pro Gly Gln Glu Asp Gly Ala  
885 890

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<213> Homo sapiens

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33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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gagtctacac	aagtaaaagt	gatgtgtggg	catttggcgt	gaccatgtgg	gaaatacgta	2520
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atggccacag	gttgaagcag	cccgaagact	gcctggatga	actgtatgaa	ataatgtact	2640
cttgcctggg	aaccgatccc	ttagaccgcc	ccaccttttc	agtattgagg	ctgcagctag	2700
aaaaactctt	agaaagtttg	cctgacgttc	ggaaccaagc	agacgttatt	tacgtcaata	2760
cacagttgct	ggagagctct	gagggcctgg	cccagggccc	cacccttgct	ccactggact	2820
tgaacatcga	ccctgactct	ataattgcct	cctgcactcc	ccgcgctgcc	atcagtgtgg	2880

# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

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tcacagcaga agttcatgac agcaaacctc atgaaggacg gtacatcctg aatgggggca 2940
gtgaggaatg ggaagatctg acttctgccc cctctgctgc agtcacagct gaaaagaaca 3000
gtgttttacc gggggagaga cttgttagga atgggggtctc ctgggtcccat tcgagcatgc 3060
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cagaagtcct gatgtgagga gaggtgcggg gagacattcc aaaaatcaag ccaattcttc 3180
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tcattactat taaatgtaaa aatatttgta aaatgaaatg ccatatttga cttggcttct 3540
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aaatagga 3608

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<210> 35
<211> 999
<212> PRT
<213> Homo sapiens

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<400> 35

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Met Gly Pro Ala Pro Leu Pro Leu Leu Leu Gly Leu Phe Leu Pro Ala
1          5          10         15

```

```

Leu Trp Arg Arg Ala Ile Thr Glu Ala Arg Glu Glu Ala Lys Pro Tyr
20         25         30

```

```

Pro Leu Phe Pro Gly Pro Phe Pro Gly Ser Leu Gln Thr Asp His Thr
35         40         45

```

```

Pro Leu Leu Ser Leu Pro His Ala Ser Gly Tyr Gln Pro Ala Leu Met
50         55         60

```

```

Phe Ser Pro Thr Gln Pro Gly Arg Pro His Thr Gly Asn Val Ala Ile
65         70         75         80

```

```

Pro Gln Val Thr Ser Val Glu Ser Lys Pro Leu Pro Pro Leu Ala Phe
85         90         95

```

```

Lys His Thr Val Gly His Ile Ile Leu Ser Glu His Lys Gly Val Lys
100        105        110

```

# 33157\_SEQUENCE LISTING (ASCII TEXT) (SSW1915).TXT

Phe Asn Cys Ser Ile Asn Val Pro Asn Ile Tyr Gln Asp Thr Thr Ile  
 115 120 125  
 Ser Trp Trp Lys Asp Gly Lys Glu Leu Leu Gly Gly His His Arg Ile  
 130 135 140  
 Thr Gln Phe Tyr Pro Asp Asp Glu Val Thr Ala Ile Ile Ala Ser Phe  
 145 150 155 160  
 Ser Ile Thr Ser Val Gln Arg Ser Asp Asn Gly Ser Tyr Ile Cys Lys  
 165 170 175  
 Met Lys Ile Asn Asn Glu Glu Ile Val Ser Asp Pro Ile Tyr Ile Glu  
 180 185 190  
 Val Gln Gly Leu Pro His Phe Thr Lys Gln Pro Glu Ser Met Asn Val  
 195 200 205  
 Thr Arg Asn Thr Ala Phe Asn Leu Thr Cys Gln Ala Val Gly Pro Pro  
 210 215 220  
 Glu Pro Val Asn Ile Phe Trp Val Gln Asn Ser Ser Arg Val Asn Glu  
 225 230 235 240  
 Gln Pro Glu Lys Ser Pro Gly Val Leu Thr Val Pro Gly Leu Thr Glu  
 245 250 255  
 Met Ala Val Phe Ser Cys Glu Ala His Asn Asp Lys Gly Leu Thr Val  
 260 265 270  
 Ser Gln Gly Val Gln Ile Asn Ile Lys Ala Ile Pro Ser Pro Pro Thr  
 275 280 285  
 Glu Val Ser Ile Arg Asn Ser Thr Ala His Ser Ile Leu Ile Ser Trp  
 290 295 300  
 Val Pro Gly Phe Asp Gly Tyr Ser Pro Phe Arg Asn Cys Ser Ile Gln  
 305 310 315 320  
 Val Lys Glu Ala Asp Pro Leu Gly Asn Gly Ser Val Met Ile Phe Asn  
 325 330 335  
 Thr Ser Ala Leu Pro His Leu Tyr Gln Ile Lys Gln Leu Gln Ala Leu  
 340 345 350  
 Ala Asn Tyr Ser Ile Gly Val Ser Cys Met Asn Glu Ile Gly Trp Ser  
 355 360 365

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Ala Val Ser Pro Trp Ile Leu Ala Ser Thr Thr Glu Gly Ala Pro Ser  
370 375 380

Val Ala Pro Leu Asn Val Thr Val Phe Leu Asn Glu Ser Ser Asp Asn  
385 390 395 400

Val Asp Ile Arg Trp Met Lys Pro Pro Thr Lys Gln Gln Asp Gly Glu  
405 410 415

Leu Val Gly Tyr Arg Ile Ser His Val Trp Gln Ser Ala Gly Ile Ser  
420 425 430

Lys Glu Leu Leu Glu Glu Val Gly Gln Asn Gly Ser Arg Ala Arg Ile  
435 440 445

Ser Val Gln Val His Asn Ala Thr Cys Thr Val Arg Ile Ala Ala Val  
450 455 460

Thr Arg Gly Gly Val Gly Pro Phe Ser Asp Pro Val Lys Ile Phe Ile  
465 470 475 480

Pro Ala His Gly Trp Val Asp Tyr Ala Pro Ser Ser Thr Pro Ala Pro  
485 490 495

Gly Asn Ala Asp Pro Val Leu Ile Ile Phe Gly Cys Phe Cys Gly Phe  
500 505 510

Ile Leu Ile Gly Leu Ile Leu Tyr Ile Ser Leu Ala Ile Arg Lys Arg  
515 520 525

Val Gln Glu Thr Lys Phe Gly Asn Ala Phe Thr Glu Glu Asp Ser Glu  
530 535 540

Leu Val Val Asn Tyr Ile Ala Lys Lys Ser Phe Cys Arg Arg Ala Ile  
545 550 555 560

Glu Leu Thr Leu His Ser Leu Gly Val Ser Glu Glu Leu Gln Asn Lys  
565 570 575

Leu Glu Asp Val Val Ile Asp Arg Asn Leu Leu Ile Leu Gly Lys Ile  
580 585 590

Leu Gly Glu Gly Glu Phe Gly Ser Val Met Glu Gly Asn Leu Lys Gln  
595 600 605

Glu Asp Gly Thr Ser Leu Lys Val Ala Val Lys Thr Met Lys Leu Asp  
610 615 620

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```

Asn Ser Ser His Arg Glu Ile Glu Glu Phe Leu Ser Glu Ala Ala Cys
625                      630                      635                      640

Met Lys Asp Phe Ser His Pro Asn Val Ile Arg Leu Leu Gly Val Cys
                      645                      650                      655

Ile Glu Met Ser Ser Gln Gly Ile Pro Lys Pro Met Val Ile Leu Pro
                      660                      665                      670

Phe Met Lys Tyr Gly Asp Leu His Thr Tyr Leu Leu Tyr Ser Arg Leu
                      675                      680                      685

Glu Thr Gly Pro Lys His Ile Pro Leu Gln Thr Leu Leu Lys Phe Met
690                      695                      700

Val Asp Ile Ala Leu Gly Met Glu Tyr Leu Ser Asn Arg Asn Phe Leu
705                      710                      715                      720

His Arg Asp Leu Ala Ala Arg Asn Cys Met Leu Arg Asp Asp Met Thr
                      725                      730                      735

Val Cys Val Ala Asp Phe Gly Leu Ser Lys Lys Ile Tyr Ser Gly Asp
                      740                      745                      750

Tyr Tyr Arg Gln Gly Arg Ile Ala Lys Met Pro Val Lys Trp Ile Ala
755                      760                      765

Ile Glu Ser Leu Ala Asp Arg Val Tyr Thr Ser Lys Ser Asp Val Trp
770                      775                      780

Ala Phe Gly Val Thr Met Trp Glu Ile Arg Thr Arg Gly Met Thr Pro
785                      790                      795                      800

Tyr Pro Gly Val Gln Asn His Glu Met Tyr Asp Tyr Leu Leu His Gly
805                      810                      815

His Arg Leu Lys Gln Pro Glu Asp Cys Leu Asp Glu Leu Tyr Glu Ile
820                      825                      830

Met Tyr Ser Cys Trp Arg Thr Asp Pro Leu Asp Arg Pro Thr Phe Ser
835                      840                      845

Val Leu Arg Leu Gln Leu Glu Lys Leu Leu Glu Ser Leu Pro Asp Val
850                      855                      860

Arg Asn Gln Ala Asp Val Ile Tyr Val Asn Thr Gln Leu Leu Glu Ser

```

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865

870

875

880

Ser Glu Gly Leu Ala Gln Gly Pro Thr Leu Ala Pro Leu Asp Leu Asn  
885 890 895

Ile Asp Pro Asp Ser Ile Ile Ala Ser Cys Thr Pro Arg Ala Ala Ile  
900 905 910

Ser Val Val Thr Ala Glu Val His Asp Ser Lys Pro His Glu Gly Arg  
915 920 925

Tyr Ile Leu Asn Gly Gly Ser Glu Glu Trp Glu Asp Leu Thr Ser Ala  
930 935 940

Pro Ser Ala Ala Val Thr Ala Glu Lys Asn Ser Val Leu Pro Gly Glu  
945 950 955 960

Arg Leu Val Arg Asn Gly Val Ser Trp Ser His Ser Ser Met Leu Pro  
965 970 975

Leu Gly Ser Ser Leu Pro Asp Glu Leu Leu Phe Ala Asp Asp Ser Ser  
980 985 990

Glu Gly Ser Glu Val Leu Met  
995